



# SCIENCE

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Course Index



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## NOTES

1 This index refers to all the material contained in the texts of Units 1 to 32 of S102. The supplementary material (Summer School Laboratory Notebooks, CALCHEM Notes, etc.) is not indexed.

2 For each entry, the page references for each Unit in which the entry appears follow the Unit number, which is printed in **bold**.

3 Flagged terms are printed in **bold**. Numbers of Units in which these terms are flagged are denoted by an asterisk. For example, the entry **polar solvents**, 13–14\*, 68; 17–18, 23 tells you that the term polar solvents is flagged in Units 13–14 on page 68, and that it also occurs on page 23 of Units 17–18.

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## USEFUL INFORMATION FOR S102

### THE GREEK ALPHABET

alpha	$A$	$\alpha$	iota	$I$	$\iota$	rho	$P$	$\rho$
beta	$B$	$\beta$	kappa	$K$	$\kappa$	sigma	$\Sigma$	$\sigma$
gamma	$\Gamma$	$\gamma$	lambda	$\Lambda$	$\lambda$	tau	$T$	$\tau$
delta	$\Delta$	$\delta$	mu	$M$	$\mu$	upsilon	$Y$	$\upsilon$
epsilon	$E$	$\epsilon$	nu	$N$	$\nu$	phi	$\Phi$	$\phi$
zeta	$Z$	$\zeta$	xi	$\Xi$	$\xi$	chi	$X$	$\chi$
eta	$H$	$\eta$	omicron	$O$	$o$	psi	$\Psi$	$\psi$
theta	$\Theta$	$\theta$	pi	$\Pi$	$\pi$	omega	$\Omega$	$\omega$

### SI UNITS USED IN S102

Physical quantity	Name of unit	Symbol	Physical quantity	Name of unit	Symbol
length	metre	m	electric current	ampere	A
mass	kilogram	kg	temperature	kelvin	K
time	second	s	amount of substance	mole	mol

### PREFIXES FOR MULTIPLES OF UNITS

Mult. factor	Prefix	Symbol	Mult. factor	Prefix	Symbol
$10^{-1}$	deci	d	$10^1$	deca	da
$10^{-2}$	centi	c	$10^2$	hecto	h
$10^{-3}$	milli	m	$10^3$	kilo	k
$10^{-6}$	micro	$\mu$	$10^6$	mega	M
$10^{-9}$	nano	n	$10^9$	giga	G
$10^{-12}$	pico	p	$10^{12}$	tera	T
$10^{-15}$	femto	f	$10^{15}$	peta	P

### DERIVED SI UNITS USED IN S102

Physical quantity	Name of derived unit	Symbol	Derived unit (in SI)
force	newton	N	$\text{kg m s}^{-2} = \text{J m}^{-1}$
energy	joule	J	$\text{kg m}^2 \text{s}^{-2} = \text{N m}$
power	watt	W	$\text{J s}^{-1}$
electric charge	coulomb	C	A s
electric potential difference	volt	V	$\text{J A}^{-1} \text{s}^{-1}$
magnetic field strength	tesla	T	$\text{N m}^{-1} \text{A}^{-1}$
frequency	hertz	Hz	$\text{s}^{-1}$

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1	Science and the planet Earth	19	Life and evolution
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9	Energy	25	Ecology
10	Modelling the behaviour of light	26	Biology reviewed
11-12	Atomic structure	27	Earth materials and processes
13-14	Chemical reactions and the Periodic Table	28-29	Geological time and Earth history
15	Chemical equilibrium	30	Quantum mechanics: an introduction
16	Chemical energetics	31	Quantum mechanics: atoms and nuclei
17-18	The chemistry of carbon compounds	32	The search for fundamental particles